

1 IN THE UNITED STATES DISTRICT COURT  
2 FOR THE NORTHERN DISTRICT OF OKLAHOMA

3 STATE OF OKLAHOMA, ex rel, )  
4 W.A. DREW EDMONDSON, in his )  
capacity as ATTORNEY GENERAL )  
5 OF THE STATE OF OKLAHOMA, )  
et al. )

6 Plaintiffs, )

7 V. )

No. 05-CV-329-GKF-SAJ

8 )  
9 TYSON FOODS, INC., et al., )

10 Defendants. )

11  
12  
13 REPORTER'S TRANSCRIPT OF PROCEEDINGS

14 FEBRUARY 20, 2008

15 PRELIMINARY INJUNCTION HEARING

16 VOLUME II

17  
18 BEFORE THE HONORABLE GREGORY K. FRIZZELL, Judge

19  
20 APPEARANCES:

21 For the Plaintiffs: Mr. Drew Edmondson  
22 Attorney General  
23 Mr. Robert Nance  
24 Mr. Daniel Lennington  
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Glen R. Dorrough  
UNITED STATES COURT REPORTER

EXHIBIT

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16	February 20, 2008	
17	MR. JORGENSEN: Good morning, Your Honor.	
18	THE COURT: Good morning, Mr. Jorgensen.	
19	MR. JORGENSEN: May I start with a housekeeping	
20	matter?	
21	THE COURT: You may, sir.	
22	MR. JORGENSEN: When you get sued, it's the usual	
23	thing to come to court on hearing day, but the company Willow	
24	Brook asked if I would say to you that they're not here.	
25	THE COURT: We got the notice. The notice that they	

1 please.

2 THE WITNESS: Gordon Vernon Johnson.

3 THE COURT: Mr. Nance, you may inquire.

4 MR. NANCE: Thank you, Your Honor.

5 DIRECT EXAMINATION

6 BY MR. NANCE:

7 Q. You've told the Court your name. Would you tell the Court  
8 what you have done in your professional career, particularly at  
9 the Oklahoma State University?

10 A. I served as extension soil nutrient management specialist  
11 and director of the soil, water and forage testing laboratory.

12 Q. And for what period of time were you at Oklahoma State  
13 University?

14 A. I was there from 1977 through 2004.

15 Q. Were you, at least in 2003 and '4, the regent's professor  
16 of soil science at the university?

17 A. Yes.

18 Q. Let me ask you to look at Exhibit No. 84 and ask if that  
19 is your curriculum vitae current through March of 2003?

20 A. Yes.

21 Q. And other than the fact of your retirement in 2004, is  
22 there any change that needs to be made to that?

23 A. No.

24 Q. Have you testified as an expert witness in court cases  
25 before?

1 Dr. Johnson, what is the approximate ratio of nitrogen to  
2 phosphorus in poultry litter?

3 A. It's approximately one to one for nitrogen and P205  
4 phosphorus.

5 Q. Okay. Thinking particularly about Bermuda grass and  
6 fescue, what's the ratio of the need for nitrogen to phosphorus  
7 in those two grasses?

8 A. Well, we can't identify the need without the soil test,  
9 but the ratio of nitrogen to phosphorus in the plant material  
10 is about eight to one.

11 Q. So if poultry waste is applied to meet the phosphorus --  
12 excuse me -- the nitrogen need of those crops, would you be  
13 applying more or less phosphorus than is needed?

14 A. You would be applying several times more phosphorus than  
15 would be needed in the plant.

16 Q. All right. Can poultry waste or poultry litter be custom  
17 blended to meet the specific nutrient needs of particular  
18 crops?

19 A. No.

20 Q. And is poultry litter or poultry waste used, to your  
21 knowledge, in feeding poultry?

22 A. To my knowledge, no.

23 Q. As a general rule, sir, in the Illinois River Watershed  
24 since the primary crops you've testified are fescue and Bermuda  
25 grass, is the feed that the poultry eats grown in that

1 soil test.

2 Q. So as a result of that rule, did people in Arkansas end up  
3 capturing more plots or more fields than they had been having  
4 tested before?

5 A. Yes, as a result of that rule, as you can see, there were  
6 a lot more fields that were sampled.

7 Q. All right, sir. What was the average STP value for the  
8 test results in Benton County in 2006?

9 A. The average in 2006 was 879 for Benton County and for  
10 Washington County, the average was 793.

11 Q. Would either one of those values be at least ten times the  
12 amount of phosphorus that's needed agronomically to grow crops?

13 A. Yes, they would.

14 Q. Let's look at exhibit -- excuse me -- 415, if we could.  
15 Before we talk about the numbers, Dr. Johnson, would you tell  
16 the Court basically what this shows, what this tabulation shows  
17 and what the source of the data was?

18 A. The source of the data was a set of soil test results  
19 representing George's and Tyson litter applications or litter  
20 applications associated with those or farmers associated with  
21 those integrators. And the data in the table is a summary of  
22 the results from those soil test reports.

23 Q. Okay. To your knowledge, were the original data things  
24 that have been produced in this case that you reviewed?

25 A. Yes, they were.

1 Q. All right, sir. We've talked, Dr. Johnson, about the  
2 nutrients, particularly the phosphorus that's in poultry  
3 litter, so that we know there are some nutrients there. But  
4 let me ask you this. As a general proposition, is poultry  
5 waste and poultry litter a good commercial type fertilizer?

6 A. No, it is not.

7 Q. Why do you say that, sir?

8 A. If it were a good fertilizer, it would be in demand by  
9 farmers who have identified nutrient deficiencies far away from  
10 where the poultry waste is generated and it would be sold by  
11 fertilizer retailers.

12 Q. How does the nutrient value per pound or per ton of  
13 poultry litter compare with the nutrient value of commercial  
14 fertilizer?

15 A. It's much, much less.

16 Q. As a result, does that mean you have to apply or move a  
17 larger weight of litter to get the same amount of fertilizer?

18 A. Yes.

19 Q. Or nutrient?

20 A. Yes, you would, yes.

21 Q. Okay. In your profession, sir, what do you mean when you  
22 talk about a soil conditioner or a soil amendment?

23 A. A soil conditioner or a soil amendment would be a material  
24 that could be applied to a soil to correct an existing chemical  
25 or physical property that was deficient in providing the

1 necessary support for crop production.

2 Q. Okay. Do you have experience prior to your retirement in  
3 reviewing for the Oklahoma Department of Agriculture, Food &  
4 Forestry proposed soil amendments that were coming on the  
5 market?

6 A. Yes.

7 Q. Do you feel like you understand what a soil amendment is  
8 and what ODAFF requires of a soil amendment?

9 A. Yes.

10 Q. Has anyone ever asked you to evaluate poultry litter as a  
11 soil amendment or a soil conditioner?

12 A. No.

13 Q. To your knowledge, Dr. Johnson, has anyone asked either  
14 you or anyone else at Oklahoma State University to evaluate  
15 poultry litter or poultry waste as a soil amendment?

16 A. No.

17 Q. Or soil conditioner?

18 A. No.

19 Q. Okay. Is, in your view, poultry litter a good soil  
20 conditioner or soil amendment?

21 A. No.

22 Q. Why not?

23 A. Well, because in order for it to be a good soil  
24 conditioner or amendment, it must have components that will  
25 correct a physical or chemical condition that's lacking in the

1 soil. And while organic matter can be added to soils to  
2 improve things like soil tilth and infiltration and  
3 moisture-holding capacity, in order for that to be effective,  
4 it needs to be incorporated into the soil, into the tillage  
5 depth.

6 Q. Is it your understanding that typically in the Illinois  
7 River Watershed poultry litter is incorporated into the soil or  
8 spread on top of the soil?

9 A. It's my understanding and it's my belief that it is seldom  
10 incorporated and most often the traditional application is  
11 simply a surface application.

12 Q. All right, sir. In your business and in your profession  
13 is unmanipulated animal manure considered a soil conditioner or  
14 a soil amendment?

15 A. No, it is not.

16 Q. And as we use these terms, are a soil conditioner and a  
17 soil amendment the same thing?

18 A. I believe so, yes.

19 Q. Okay. In the testimony that you've given, Dr. Johnson,  
20 have you taken any account of the bacterial content of poultry  
21 waste as opposed to the nutrients that we've discussed?

22 A. No.

23 MR. NANCE: Nothing further, Your Honor, oh, other  
24 than to move admission of the exhibits.

25 THE COURT: Very well. Those exhibits, do they have